100% DIP/DOP
DRAFT

FILENAME: Nrcmdip4.doc
DATE: 10 Sep. '97

STATUS: Final

ORIGINATORS:
John Nardachioni (519-472-1448)
Randell Brown (914-496-7685)
Earle Jenkins (603-968-3829)

ISSUE: 100% ILEC DIP & DOP in the NRCM is an defensive position.

MCI/ATT POSITION: Yes, BUT challenged by the SMEs & witnesses.

SUPPORT:
Assumed that the long standing practice of DIP & DOP is the most cost efficient method of commiting facilities in advance. This is done during the construction phase with the assigned facilities being updated in the LFACS and SWITCH inventory systems.

OPINIONS:
1. DIP/DOP refers to the station wire and cable facilities to the central office There may be situations where the concept of 100% DIP/DOP may not apply. An example is where lots may have been subdivided and where there would be no existing plant (e.g. feeder, distribution, drop wire) established/constructed to the new building. This would also be the case in a new subdivision where all of the plant may have been constructed up to the Serving area interface (SAI). DIP/DOP varies by area, state and ILEC. Therefore, the 100% DIP/DOP assumption may be insupportable since absolute DIP/DOP can create problems as detailed below.

2. It is obvious that all lines presently in service are DOP candidates (99%+)

3. A very high percentage (90%−) of reconnects for residential service utilize DOP facilities. Exceptions would include areas with few spares where a DOP may be 'stolen' to provide someone else with service.

4. A high percentage (80%+) of new installs and second lines involve dispatch. Very few companies pre-run drop and inside wire today unless they have an agreement with the building landlord, etc.

5. The majority of business orders are dispatched today even where DOPs are in place since the inside building cable and associated wire usually require some changes. This, however, would be an additional charge to the customer and should not be confused with the DOP process.

ANTICIPATED ATTACKS:
1. The ILEC will challenge the fact that DIP/DOP is 100% and since it may be less, how should those costs be modeled.

2. Will the CLEC be establishing a DIP/DOP process for the facilities to the co-location cage?

3. How are CLEC DIP/DOP facilities modeled?

4. What recurring and non-recurring charges should be levied on the CLEC in such a situation?

100% DIP/DOP
DRAFT

RECOMMENDATIONS:

1. Generate a discovery request (DR) to determine what the DIP/DOP ratio is for the ILEC. The ILEC may respond with a lower than expected ratio.

2. Modify the NRCM be include a variable DIP/DOP input using the same rationale as for the Copper/Fiber ratio and based on a well run ILEC(s) that exploit all of the benefits of a DIP/DOP program.

3. Add steps to the model to include the dispatching of an installer for drop
4. installation and associated testing.

5. Address the issue of CLEC DIP/DOP by determining a policy and applying
6. same to the cost model (for disconnects).

7. Use a National average (if there is such a thing) as the model default. If not, I would recommend 80 - 85% for DIP and 85 -90% for DOP (this is only a gut feel and outside plant experts may wish to suggest another number). I would also blend the two (2) percentages so that only one variable input is required in the model.

WITNESS STRATEGY:

The ILEC should provide the DIP/DOP ratio to the CLEC in a timely manner such that the data is input into the NRCM to account for deviations from the assumed 100% DIP/DOP scenario. If the DR is not answered soon enough, then the witness should ask the Commissioners to direct the ILEC to provide the data and offer to run the NRCM costs again with the revised data, emphasizing that the model run will only take a few minutes to complete the many calculations required to establish fair and reasonable NRCs that include the required DIP/DOP adjustment. If the DR response indicates an abnormally low ratio, promote the new default ratio developed from other ILECs that exploit the benefits of DIP/DOP to a higher degree.

SUGGESTED TESTIMONY QUESTIONS & ANSWERS:

Q1. Are there any situations where the 100% DIP/DOP assumption would be invalid and an installer dispatch would be required?

A1. Yes, there are several. Some examples could be in the case where existing properties have been further subdivided and new homes built that would exceed the capacity of the original facility build for that area or where a new subdivision has been established and the drop wires have not been run from the Serving Area Interface (SAI) to the building.. There could also be situations where a second line into a location is ordered, where the inside wiring has been placed by other than an ILEC (e.g. new development) or where the ILEC has chosen not fully DIP/DOP a particular area .

Q2. How should NRCs be established where the existing facility will be exhausted.?

A2. There should be no NRCs in such a case since the ILEC would be required to construct additional facilities and the costs would be recovered in the recurring rates and the DIP/DOP process would be invoked as part of the construction process.

Q3. How should NRCs be established where a drop has not been installed (e.g. new subdivision) or an additional line has been ordered?

A3. The NRCs should be established as illustrated in the NRCM for such a scenario. That is, NRCs would be charged for the dispatch of the installer (assuming four work orders) and for the time to install and test the drop wire. The cost of the materiel would be recovered under recurring charges.

100% DIP/DOP
DRAFT

Q4. How should NRCs be established for situations where DIP/DOP has not been fully implemented?

A4. Since the DIP/DOP processes are proven cost efficient/effective processes, the NRCs should be based on the assumption that the facilities are DIP/DOP. This position further promotes the TELRIC principles adopted by this Commission and the FCC and positions the customer to receive quality service at the best possible price.

How is Growth Handled in the Hatfield Model?
Implications for the Non-recurring Cost Development Team

In an attempt to keep the recurring and non-recurring cost methodologies linked, I would like to explain how the Hatfield Model handles "growth" through a series of questions and answers which follow.

Q. What is the definition of "growth"?

A. "Growth" will be defined as the addition of new line installations in a particular state and a particular company.

Q. Does the Hatfield Model directly account for growth of new line installations?

A. The Hatfield Model does not directly account for growth of new line installations. Instead the model designs a network that would efficiently serve the current level of switched and non-switched access lines reported by the company for a particular state. The Model then estimates a set of annualized costs for various network elements required to provide local service. The annualized costs are used to produce unit costs for each of the various network elements (e.g., loop, switch port, NID, etc.) which conform to a Total Element Long Run Incremental Costing (TELRIC) methodology.

Q. Could this network serve one additional line?

A. Yes. This network could serve one additional line. The Hatfield Model assumes that various components of the network are not utilized to the maximum point at which a network engineer would recommend additional network investment. For example, distribution cable pairs are considered to reach maximum utilization when 85% of the cable pairs are operational. In the Hatfield Model distribution cable utilization falls within the 50-60% range—significantly less than the 85% maximum. Consequently, some increment of additional lines could be served by the network estimated by the Hatfield Model.

Q. Why does the Hatfield Model assume so much spare capacity?

A. Spare capacity within the Hatfield Model is included to recognize that local network components in efficiently designed local networks will never be fully utilized during the entire life of those network components. In effect, the Model estimates an efficient average utilization for components. The efficient average utilization is often higher than the embedded average utilization recommended by an incumbent LEC.

Q. Given the example above identifying spare capacity of at least 25%, is it correct to state that the network investment estimated by the Hatfield Model can accommodate growth of 3% per year for eight years?

A. No. The 25% spare capacity (85% - 60%) figure applies only to distribution cable. Other components of the network include significantly less spare capacity. Therefore, it would be incorrect to assume that growth 3% per year for eight years can be served.

Q. Is it true that x% of growth for y years could be served by spare capacity estimated within the Hatfield Model?

A. Yes, it is correct that x% of growth for y years could be served by spare capacity, but it is extremely difficult to identify the magnitudes of x and y and the model developers have not chosen to do so.

Q. Does the Hatfield Model estimate unit costs as well as total capitalized network investments plus expenses?

A. The Model estimates unit costs such as the cost per loop and cost per switched minute. For example, the statewide cost per loop for a particular company is determined by summing the annualized investment in EF&I (engineered, furnished and installed) loop facilities plus associated loop expenses and a portion of common costs and dividing that annual loop cost by the number of loops for that company in that state for the most recently available year.

Q. Does the unit cost calculation have any relevance for "growth" purposes?

A. Yes. The unit cost calculation provides an estimate of how much an additional unit would cost to produce. The calculation does not account for any economies of scale or scope which have caused unit costs to decline within the telecommunications industry, even after allowing for inflation. Therefore, the cost to add an additional line as measured by the Hatfield unit cost is higher than post-divestiture history would lead us to expect.

DRAFT - PREPARED IN ANTICIPATION OF LITIGATION

FILENAME: TEMP\NRCMTST4 DATE: 10 Sep. '97

STATUS: Final

ORIGINATOR: John Nardachioni (519-472-1448)
Randell Brown (914-496-7685)
Earle Jenkins (603-968-3829)
(CC Jack Lynott)

ISSUE: Necessity for the ILEC to pre-test 2-Wire UNE copper loops with a MLT prior to migrating customers to CLEC.

MCI/ATT POSITION: No.

SUPPORT: Assumed that ILEC LDSs are equipped with and using ALIT and the loop meets performance objectives prior to migration. After migration, CLEC performs ALIT and MLT (if required) testing. For UNE-P, the circuit terminates on the CLEC switch and there are no wiring changes.

For TSR, only a billing change is involved.

OPINIONS: 1-Loop verification (ANAC, Dial Tone, Line idle - ref. Para. 6.6 of NRCM Assumptions) and the ILEC's use of the Predicator Automatic Line Insulation Test (ALIT) are not challenged.

2-Pre-testing is separate from the preceding. All circuits require pre-testing. This serves a dual purpose - 1) to ensure that the individual pieces of the circuit operate properly, and 2) to ensure that the overall circuit meets the tariffed resale parameters. For example, the ALIT will not identify a 'static on the line' fault.

3-Pre-testing, from a quality/customer satisfaction perspective, should be performed by the ILEC. If not, the onus is placed on the CLEC to test and refer back to the ILEC any problems discovered on circuits that are not pre-tested. This can be cost and labor intensive if a service order has been completed/closed. A decision not to require pre-service testing implies a willingness to allow the customer to do the 'testing' and advise the CLEC of service problems thus jeopardizing CLEC/customer relations/reputation.

4-Pre-service testing is a standard task performed on almost all ILEC service offerings. Testing prior to hand-off, from an ILEC perspective, ensures service quality - hence their reputation. If the CLEC does not test or does not have access to test, the onus is then placed on the customer to determine service quality - a position that does not lend itself to good CLEC/customer relations/reputation.

5-As an alternative and a matter of practicality and economic restraint, the CLEC must have unrestricted access to a customer's repair history. Customers may be switching to a CLEC simply because ILEC has not provided an acceptable level of service due to a defective loop (e.g. wet cable). A mechanism should be in place to ensure that the CLEC receives a quality product and if not, recourse is available to have corrective action effected at no cost to the CLEC, even if the order has been completed/closed. As stated above, ALIT will not identify all faults. In addition, faults such as a wet cable will only be evident on rainy days. So

'signing off' on a particular day may not be the best way to go.

6-The decision to perform pre-testing is not a technical, process, quality, customer relations/satisfaction issue. It is a purely economic issue. Which is more expensive, the pennies to test or questionable service quality. Retention of and confidence building with the new customer will depend heavily on satisfaction and quick resolution of problems.

ANTICIPATED ATTACKS: The ILEC will challenge our questioning of their test procedures, fault clearing capabilities and integrity (that they would be migrating a 'lemon'). Why should the ILEC bear the cost of verifying a working service? If there is a charge, the ILEC would most likely want it to be a NRC (get the money up front and run). The ILEC would probably take the position that their responsibility ends when the service migrates and the order is closed.

RECOMMENDATIONS: 1 - A decision/policy has been made by AT&T and MCI NOT to pre-test UNE copper loops. Therefore, a mechanism should be established to ensure reception of a quality product and appropriate recourse(s) when it is not received. If only for the reasons stated in Opinions # 3 and 5.

WITNESS STRATEGY: The ILEC should provide some sort of warranty on the UNE being migrated. It would be a barrier to entry for the CLEC to incur heavy repair related charges for a copper loop that had a history of repair reports. Especially since the success of acquiring new customers will depend to a large degree on 'word of mouth' advertising. If the repair action required, for example the replacement of a section of cable, the associated costs, including reception and processing of the trouble reports should be borne by the ILEC on a charge back basis. Is this any different than buying a used car, from a reputable car dealer, that was a lemon to the previous owner? A purchaser expects a new product to operate correctly, not to have to return it for repairs. Quality is not an unreasonable expectation.

SUGGESTED TESTIMONY
QUESTIONS & ANSWERS:

1- Q. Would there be any situations where performing a pre-test of the UNE copper loop may be required?
A. No, the circuit should be operating per specifications prior to the service migrating from the ILEC to the CLEC. The ILEC should be operating the Predicator or Automatic Line Insulation Test (ALIT) which would identify most loop faults prior to the customer being aware of a problem. However, if a loop has a poor repair history, the CLEC should be provided with a warranty period to ensure that a barrier to entry is not created by abnormally high customer requests for repair.

2- Q. Can you give an example of a situation where such a barrier to entry would be created?
A. Yes. Customers may be switching to a CLEC simply because ILEC has not provided an acceptable level of service due to a defective loop (e.g. wet cable). A mechanism should be in place to ensure that the CLEC receives a quality product and if not, recourse is available to have corrective action effected at no cost to the CLEC, even if the order has been completed/closed. As stated in my previous response, ALIT will not identify all faults. In addition, faults such as a wet cable will only be evident on rainy days or shortly thereafter. So 'signing off' on a particular day may not be the best way to go.

3 - Q. Would a barrier to entry be created if a UNE copper loop with a history of repair reports were migrated to a CLEC?

A. Yes. Because the additional costs of receiving and processing higher levels of repair reports as well as testing and fault clearance verification would place an unfair burden on the new entrant for conditions over which it has no control. AT&T and MCI are in the business of providing service and quality, a reasonable expectation of any customer.

DRAFT - PREPARED IN ANTICIPATION OF LITIGATION

FILENAME: TEMPJOTRAN4 DATE: 10 Sep. '97

STATUS: Final

ORIGINATOR: John Nardachioni (519-472-1448)
Randell Brown (919-496-7685)
(cc Phil Triola)
(cc Jack Lynott)

ISSUE: Defense of Interoffice Transport cost model assumptions: SONET rings, virtual DS1 & DS3 over SONET rings, Digital Crossconnect Systems (DCS)' Electronic Digital Signal Crossconnect (EDSX), Performance Monitoring (PM) thresholds have been set, Quad (4-port) plug-in modules used in DCS/EDSX , designed IOF transport controlled by FMAC, DS0/ DS1/ DS3 EICTs do not exceed distance design criteria. Facility Maintenance and Administration Center (FMAC) tests alarms on a system basis. DS1 grooming within a DS3 is processor time only.

MCI/ATT POSITION: SONET rings and DCSs are some of the most forward looking technologies available, are widely deployed by ILECs throughout the USA today and agree with TELRIC principles. Reduced labor requirements and realizing economies of scale through utilization of intelligent network element features and capabilities to set and test Alarm and Performance Monitoring threshold settings on system wide basis during system commissioning and acceptance. Designed IOF transport facilities are surveilled and controlled by a FMAC. DS0/DS1/DS3 EICTs are less than 172, 650 and 450 feet respectively.

SUPPORT: That SONET ring and DCS technology consistently proves to be financially advantageous in Interoffice Network planning models and cost studies is supported by its widespread deployment by all of the ILECs. In addition, the features provided by these products include robust survivability, automatic restoration, remote management and provisioning functions and lower implementation costs.

Performance Monitoring (PM) and alarm thresholds can be embedded in the system software load when purchased from the vendor or set on a system wide basis during the commissioning and acceptance process. There is no need to perform these activities on a labor intensive, circuit/port basis.

An FMAC staffed by highly trained technicians to surveill and control all designed IOF transport facilities reduces training costs and difficulties associated with keeping a large body of technicians fully trained in the latest technologies in a rapidly changing/advancing technological telecommunications industry. The high reliability of and infrequent need for technicians to actually work on these intelligent products results in cold storage training. It is often more cost effective for a field technician to work under the direction of the higher skilled FMAC staff.

All DS0, DS1, DS3 Expanded Interconnection Channel Terminations are less than the maximum design distance limitations of 172, 650 and 450 feet respectively. These distances are rarely exceeded due to the additional equipment required (e.g. repeaters, amplifiers,

regenerators, etc.) and associated economic penalties as well as the high potential for service impairment. The FCC has already determined that "...it is unreasonable for the LECs to charge interconnectors for the cost of regenerators in a physical collocation arrangement as most cabling arrangements can be established such that distances do not require the application of regenerators for physical collocation service" - FCC 97-208 June 13, 1997, Physical Collocation Tariff Investigation, Para. 117. In the same report, the FCC concluded that the charges for regeneration should be excluded. The FCC reasoned that the ILECs control the collocation design and resultant cabling routes and lengths, and have the ability to control whether regeneration devices are required. Thus an ILEC, if allowed to charge for regeneration, would not have the incentive to locate competitors in the most efficient location available and it would allow the ILEC to discriminate against its competitors.

OPINIONS: Use of these intelligent network elements reduce the labor required to install, commission, provision and maintain them since there are sophisticated test and performance capabilities built into the software, significant reductions in test sets is also realized.

ANTICIPATED ATTACKS: The ILEC will challenge our statement on IOF cost models (NEED SOME HELP HERE. I KNOW ITS TRUE BUT DON'T HAVE SPECIFICS - CAN MCI or AT&T NTWK PLANNING HELP?)

There may be a challenge that we are advocating reduced skill sets for field technicians. This has a potential for reducing labor costs.

RECOMMENDATIONS: Generate DR's to determine whether: 1- Inter Office Transport planning cost models are used to prove in (economically or otherwise) Fiber Optic systems and Digital Cross Connect Systems, 2- amount of network is copper versus SONET, 3- Future plans for deploying Fiber Optics and Intelligent Network Elements and expected network penetration.

WITNESS STRATEGY: Promote the features and capabilities of forward looking technologies that promote the TELRIC principles. Emphasize the reduction of labor costs but not the potential for staff reductions.

SUGGESTED TESTIMONY
QUESTIONS & ANSWERS:

1- Q. Please explain the Interoffice Transport Cost Modeling Assumptions?
A. THIS IS AN EXISTING QUESTION IN THE NRCM TESTIMONY. Incorporate the above into the answer.

2- Q. Are there any situations where the maximum distance design limitations for DS0, DS1 or DS3 EICTs would be exceeded and how frequent would you expect this to occur?
A. It is highly unlikely for such a situation to occur since the additional equipment required would be a poor economical decision as well as the potential for service impairment and degradation.

3- Q. If the EICT distance limitations had to be exceeded, how should the costs be recovered?

A. The costs should be borne by the ILEC. The FCC has already determined that "...it is unreasonable for the LECs to charge interconnectors for the cost of regenerators in a physical collocation arrangement as most cabling arrangements can be established such that distances do not require the application of regenerators for physical collocation service" - FCC 97-208 June 13, 1997, Physical Collocation Tariff Investigation, Para. 117. In the same report, the FCC concluded that the charges for regeneration should be excluded. The FCC reasoned that the ILECs control the collocation design and resultant cabling routes and lengths, and have the ability to control whether regeneration devices are required. Thus an ILEC, if allowed to charge for regeneration, would not have the incentive to locate competitors in the most efficient location available and it would allow the ILEC to discriminate against its competitors.

ORIGINATOR: JAMES RECKER (303-771-6637)

ISSUE: Activities per trip, assumed to be four.

AT&T/MCI Position: The CLECs position is that the CO technician will perform at least 4 acitvities at the CO when travel to a CO is required or the outside technicians will perform 4 activities at the SAI (could be different SAI) within the same CBG.

For example, the CO technician will not just place cross connects (jumpers) at the CO which they travel too. Many activities not related to one service order that is being provisioned would be performed. Some examples include: general on going maintenance functions (cleaning the CO area), routines, and/or other provisioning activities for themselves or other New Entrants. Another example is when one service order contains 2 lines the technician will provision both lines at the same time and will not make a separate trip to the same CO.

The study presumes that the technician performs four work activities per trip. The four work activities could include maintenance, orders for other new entrants and the ILEC itself, and will occur within the Census Block Group (CBG) rather than a specific FDI. The work activities could be at the same location or within the area. Another example that is similar to the CO technician example is that the same order has 2 lines. These will be provisioned at the same time and will require another trip to the SAI.

SUPPORT:.This activity is closely related to travel time. The assumption associated with this activity revolves around the fact that the technician does not return to the dispatch garage for each service order. The technician can get service orders at the garage where service orders are printed and distributed to the pool of technicians at the start of their work tour. Another means of getting service orders when not at the reporting location is to use a mechanized Work Force Management system using portable terminals. The 4 activities per trip means that the technician will perform 4 work activities as stated above within the same CBG or 2 service order with 2 activities per order. The actual activities that are performed are running the cross connect(s) at the SAI or connecting the drop at the distribution pedestal.

The CO technician activities are related to travel time and assumes similar activities per trip as above.

B

ATTACHMENT B

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-13. **Provide a copy of all minutes, notes, handouts, presentations, or other documents reflecting any communications, meetings, or other exchanges between or among some or all of AT&T's subject matter experts concerning the NRCM model's development, methodology, underlying assumptions, work time estimates, operation, or results.**

AT&T/WCOM Response:

See the enclosed document.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom CC Docket Nos. 00-218 & 00-251 August 3, 2001

VZ-VA IV-16. **On page 15 of the NRCM Model Description, you state "[t]hese work time estimates were obtained from a panel of subject matter experts or other sources . . . ." Specifically identify each of the "other sources" referred to in this sentence.**

AT&T/WCOM Response:

These time estimates are for tasks that team members have performed, supervised, or witnessed thousands of times. Thus, continuous observations and discussion served as "other sources." See also the response to No. 12.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-19. **Identify the specific services for which the EASE system is used, including whether it is used for business services or just for residential services and whether EASE has been used in connection with ordering UNEs (as opposed to retail services). Identify the specific services for which EASE has allegedly achieved a 1% fallout rate and provide all available documentation supporting such a claim.**

AT&T/WCOM Response:

The subject matter experts for the NRCM referred to EASE as an example of a mechanized process with a low fallout rate. This is clear in the discussion in the NTAB. No assertion was made that the specific system was being used to deliver UNEs. Verizon's attempt to draw conclusions about whether EASE is being used specifically in connection with UNEs misses the point. Regardless of whether EASE is used to deliver UNEs, EASE is a mechanized process with a low fallout rate. AT&T/WorldCom are not in a position to identify all uses for which SWBT may use the system or similar systems.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-21. **The NTAB states that "[T]here are ILECs that have systems and processes that deliver services built with unbundled network elements and their fallout levels are approaching, at, or better than, what our model proposes for certain service delivery." (NTAB at 24). Identify all ILECs referenced in this statement. For each such ILEC, identify each of the specific "services built with network elements" to which this statement refers and the fallout rate for each such service. Provide all documentation supporting AT&T's answer.**

AT&T/WCOM Response:

The sponsors of the NRCM realized that, generally speaking, ILECs have been using network components for the provisioning of retail services that are directly related to the UNEs for which the NRCM produces costs. As such, the processes and systems that the ILECs have in place allowed for the flow through functionality to exist. It was with this understanding, and the categorization of fallout as represented in the NRCM documentation, that the referenced statement was made.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-22. **Identify all work activities that are accounted for in the 60 seconds necessary to establish an original cross connect service order as contained in the NRCM, as described at Steps 74 and 75 ("Install cross connect from MDF to CFA appearance") of the NRC Model Activity Descriptions, Attachment B to the NTAB.**

AT&T/WCOM Response:

The work activity would involve a technician connecting one end of a cross wire to the copper feeder Cable Pair, and the other end of the same cross wire to the CFA appearance. Related tasks are accounted for elsewhere in the NRCM.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-25. **Page 65 of the NTAB refers to the use of a "Low Profile Distribution Frame (LPDF (Cosmic-Type)) punch-down with short jumper concept." Does the NRCM assume that all main distributing frames are or will be low profile or COSMIC-type frames of the kind referred to on this page? If so, identify any ILEC known to AT&T that uses 100% low profile or COSMIC-type frames.**

AT&T/WCOM Response:

No.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc's Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-26. **Provide a list of the manufacturer(s)/vendor(s) and prices for the low profile or COSMIC-type frames that the NRCM assumes Verizon will use in its network.**

AT&T/WCOM Response:

The NRCM assumes forward looking, least cost, and most efficient technology and is not dependent on a specific make, model, or vendor of this equipment.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-27. **Provide manufacturer/vendor or any other documentation describing the features, specifications, and central office requirements for the low profile or COSMIC-type frames assumed by the NRCM.**

AT&T/WCOM Response:

The NRCM assumes forward looking, least cost, and most efficient technology and is not dependent on a specific make, model, or vendor of this equipment.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-28. **Explain in detail what effect the NRCM's assumption of 100% Dedicated Inside Plant will have on the sizing and utilization of central office equipment, including in particular how use of 100% Dedicated Inside Plant will affect the size and number of ports for a switch as compared to a network that does not have 100% Dedicated Inside Plant.**

AT&T/WCOM Response:

Dedicated Inside Plant is a modeling convention to avoid double-counting of costs already reflected in the recurring cost modeling. Thus, this assumption has no effect on the sizing and utilization of central office equipment, including the size and number of switch ports.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Fourth Set Of Data Requests To AT&T And Fifth Set of Data Requests To WorldCom
CC Docket Nos. 00-218 & 00-251
August 3, 2001

VZ-VA IV-31. **Identify all carriers of which AT&T is aware that build and maintain a 100% DIP and/or 100% DOP network. If AT&T is able to identify any such carrier, provide all available documentation in support of AT&T's claim.**

AT&T/WCOM Response:

This proceeding will use a forward-looking cost methodology, consistent with the Telecommunications Act of 1996, to determine the appropriate rates. The forward-looking cost methodology requires assessment of the costs of a firm that serves the entire volume currently served by the incumbent with wire centers located where Verizon's wire centers are currently located. A network with 100% DIP/DOP represents the conceptual inputs needed to describe the reconstructed, fully deployed, forward-looking network appropriately used to determine the recurring and non-recurring cost of UNEs. With that framework in mind, the NRCM does not produce activity work times and the associated non-recurring costs that flow from actual networks deployed by a specific ILEC.

AT&T Communications Of Virginia, Inc.'s And WorldCom Inc.'s Response to Verizon Virginia's Seventh Set Of Data Requests To AT&T And To WorldCom CC Docket Nos. 00-218 & 00-251 August 24, 2001

VZ-VA VII-26. **Referring to AT&T's and WorldCom's Response to VZ-VA IV-32(a), with respect to each of the alleged "four individual methods for interconnection of ILEC's IDLC Loop (DS-0) to the CLEC," does AT&T or WorldCom have an arrangement with any ILEC in any location in the United States today in which one or more of those methods is used to interconnect individual (DS-0) unbundled loops to the CLEC? If so, for each such arrangement, provide the name of the ILEC, the name and location of the served central office, and the quantity of DS-0's configured as described.**

AT&T/WCOM Response:

AT&T and WCOM explained in response to VZ-VA IV-32 that this proceeding will use a forward-looking cost methodology, consistent with the Telecommunications Act of 1996, to determine the appropriate rates. The forward-looking cost methodology requires assessment of the costs of a firm that serves the entire volume currently served by the incumbent with wire centers located where Verizon's wire centers are currently located. Notwithstanding Verizon has, on occasion, acknowledged the technical feasibility in a forward looking environment of electronically unbundling loops over IDLC (e.g., in its November23, 1998 Report to the New York Public Service Commission) and notwithstanding the fact that the NRCM does not produce activity work times and non-recurring costs that flow from actual networks deployed by a specific ILEC, AT&T and WorldCom are not aware of any arrangements with any ILEC using one or more of those methods.